

REMARKS

The application has been amended to place the application in condition for allowance at the time of the next Official Action.

Claims 1-14 are present in the application.

Claim 1 is amended to address the claim rejection under 35 USC §112, second paragraph.

Claims 1-14 are rejected as unpatentable over KALTENBRUNNER et al. 5,861,609 in view of applicant's disclosed prior art. This rejection is respectfully traversed.

Claim 1 provides that at least one second layer has a defined absorption for a defined electromagnetic radiation. Claim 1 also provides that a transparency body is semi-transparent and has a defined transmission and a defined absorption with respect to the defined electromagnetic radiation. Claim 1 further provides that an energy source comprises a first energy source and at least one second energy source emitting the defined electromagnetic radiation.

The Official Action offers element 62 of KALTENBRUNNER et al. as a transparency body. Element 62 of KALTENBRUNNER et al. is a quartz chamber that encloses wafer 10, but does not have a defined transmission and absorption with respect to a defined electromagnetic radiation.

Column 5, lines 57-67 of KALTENBRUNNER et al. teach that wafer 10 is held between thin absorbing plates 20, 30. The

absorbing plates are made of a material that absorbs and is heated by visible light and/or near infra-red radiation from the heating lamps.

Accordingly, plates 20, 30 absorb the defined electromagnetic radiation emitted from energy sources (lamps 70, 72). However, plates 20, 30 are not a transparency body. As set forth above, the quartz chamber 62 of KALTENBRUNNER et al. is not a transparency body that has a defined transmission and a defined absorption with respect to the defined electromagnetic radiation as recited. Therefore, KALTENBRUNNER et al. do not disclose or suggest a transparency body having a defined transmission and a defined absorption with respect to a defined electromagnetic radiation.

In addition, the Official Action has indicated element 20 of KALTENBRUNNER et al. as a second layer of a multilayer body to be annealed. This assertion is not supported by the reference. In KALTENBRUNNER et al., the piece to be annealed is wafer 10. Wafer 10 is not a multilayer body.

Column 5, lines 27-42 of KALTENBRUNNER et al. teach that top thin plate 30 and bottom thin plate 20 of the invention are spaced apart and not in a touching relationship to wafer 10. If the wafer 10 is in contact with the plate 20 or 30, damage and contamination may result as well as non-uniform heating from the few points where the wafer and plate touch. Accordingly, plate 20 noted in the Official Action is not part of a multilayer body.

Therefore, KALTENBRUNNER et al. could not teach that at least one second layer (of a multilayer body) has a defined absorption for a defined electromagnetic radiation as recited.

As noted in the Official Action, applicant's disclosed prior art discloses a multilayer body. However, the teaching of a transparency body that is semi-transparent and has a defined transmission and a defined absorption with respect to the defined electromagnetic radiation is missing from each of the references.

Applicant has found that when the multilayer body is arranged between the second energy source and the second layer is not a transparency body (plate 20 of KALTENBRUNNER et al. is not a transparency body), the multilayer body will undesirably bend or even crack. In particular, if the first layer, the substrate, is of glass and if a highly absorbing plate, such as plate 20 of KALTENBRUNNER et al. is used, the number of annealed bodies that are cracked or bent is very large.

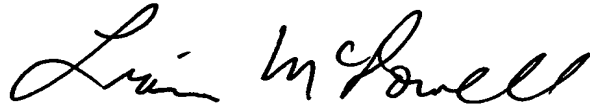
When a transparency body (such as recited in claim 1) is positioned between a second energy source and the second layer (of the multilayer body), the amount of cracks produced by the recited annealing process is substantially zero. When more powerful energy sources that are designed to provide high heating rates for the multilayer body are used, the difference between the number of cracks during annealing using a transparency body as recited and using the plates of KALTENBRUNNER et al. is even greater.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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